

Case Study: Global Pharmaceutical Manufacturer



A Fully Integrated Digital Radio System for a Global Pharmaceutical Manufacturer.

Introduction

A global pharmaceutical manufacturer - operating a major production facility in Ireland - required robust, reliable communication across its complex site.

Communication reliability was critical, particularly within cleanroom laboratories, ATEX-rated zones, basements, and heavily reinforced pipework areas. In an environment where safety, compliance, and rapid response are essential, dependable site-wide communication is non-negotiable.

The Challenge

The facility's legacy analogue radio system was no longer capable of meeting operational demands. Signal dead zones were affecting key areas of the site, particularly within metal-dense structures and lower-level plant spaces. Communication breakdowns were becoming more frequent, and the system offered limited integration with existing safety and alarm infrastructure.

For a highly regulated pharmaceutical environment, these shortcomings presented more than inconvenience. Gaps in communication had the potential to slow emergency response, disrupt workflow efficiency and increase operational risk.

The organisation required a modern, resilient solution that would eliminate coverage gaps, enhance staff safety and integrate seamlessly with critical site systems - all without disrupting day-to-day operations.



The Assessment & The Solution

Critico carried out a detailed on-site assessment to identify coverage gaps and understand the facility's operational and safety requirements. Signal performance was tested across complex areas including cleanrooms, service corridors and reinforced basements.

Based on these findings, a tailored digital radio system was implemented to deliver resilient, site-wide coverage. ATEX-certified devices were deployed for hazardous environments, with full integration into the site's fire and safety systems. Man-down and emergency alert functionality further strengthened workforce protection.

Built on an IP-linked infrastructure, the system is scalable and future-ready - providing reliable communication when it matters most while supporting safety, compliance and operational efficiency.



Benefits

The new digital communication system delivered immediate and measurable improvements across the facility. Reliable, consistent coverage is now achieved across all areas, including basements, cleanrooms and reinforced structural zones where signal was previously unreliable.

Staff safety has been significantly enhanced through the deployment of ATEX-certified digital radios with built-in man-down functionality, alongside full integration with the site's fire alarm system, strengthening emergency response procedures across the facility.

Operational efficiency has improved through clearer, faster communication between teams, reducing downtime and improving coordination. The IP-linked infrastructure also provides a scalable, future-ready platform that can adapt as site requirements evolve, while maintaining seamless integration with existing safety systems.

Final Thoughts

Critico's Sean O'Neill comments:

"Over the past couple of years, it's been clear how seriously this organisation takes safety and communication across its departments. Our digital radio solution enables Security, Emergency Response Teams and operational staff to communicate reliably and stay protected across the site.

With the added support of our maintenance agreement, we ensure the system remains fully operational with rapid response when required, and we look forward to continuing to support their critical communication needs."

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Communication
without compromise.